

**DIRECTION OF OPTICAL SIGNALS BY A MOVABLE  
DIFFRACTIVE OPTICAL ELEMENT**

**ABSTRACT OF THE DISCLOSURE**

A method and apparatus particularly useful for telecommunications applications, such as switching (Add/Drop), multiplexing and demultiplexing, is disclosed. The method commences by directing a source of input optical signal(s) (10) onto a movable diffractive optical element or MDOE. Each of the optical signals is associated with a particular wavelength. Next, one or more output stations are supplied. Finally, the MDOE generates and distributes output optical signals among the output station(s). The corresponding system for treating the optical signals from a source thereof includes a source carrying two or more input optical signals, each of the signals being associated with a particular wavelength. Also included is a movable diffractive optical element positioned to intercept the source optical signals for producing and distributing one or more diffracted output optical signals. Finally, one or more output stations are positioned to receive the diffracted optical signal(s) from the MDOE.

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